



# Orem Sewer Base Rate

# Implementation Plan

- Spring 2014 – Hired Bowen Collins and Associates to perform Sewer, Water, and Storm Water Master Plans
- December 2014 – Presented concept to City Council.
- February 2015 – Hired a GIS graduate to identify all non-residential and residential units within the City.
- August 2015 – Completed study.
- September 2015 – Presented study findings to PWAC.
- October 2015 – Present study findings to City Council.
- December 2015 – Send notification to public.
- December 8, 2015 – Formally adopt new billing policy.
- July 1, 2016 – Implement new billing policy.

# Background

**Sewer Base Rate.** Orem City presently charges users of the city sewer system a monthly “sewer base rate” for service. This charge is uniform for both residential, commercial, industrial, and all other non-residential users.

**Sewer Volume Rate.** The users are also charged a sewer volume rate based on the flows they contribute to the system. The sewer volume rate is based on the *average monthly water consumption* from the previous winter. This average monthly winter water consumption is the estimated amount of wastewater that would end up in and be treated at the Orem Water Reclamation Facility.



# City of Orem - Service Bill

56 North State, Orem, Utah 84057 (801) 229-7275  
Office Hours: Mon - Thu 7:30 - 5:30, Fri 8:00 - 5:00  
billpay.orem.org or Pay by phone: (801) 229-7222

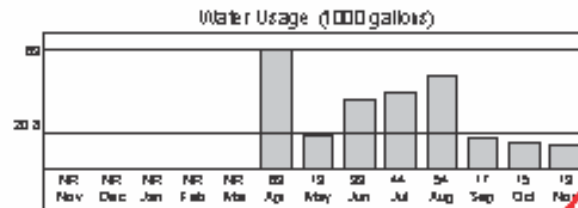
Scan the barcode or visit  
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newsletters, text-message alerts,  
or social media updates!

## SERVICE INFORMATION

Service Period: 10/30/2014 to 11/30/2014

NAME  
ADDRESS

Previous Read	Current Read	Consumption
9675	9688	13



This is the Sewer Base Rate. This value is fixed each month. For this bill, this charge represents one (1) sewer base rate or \$9.32.

This is the Production Rate. This value is derived from the average monthly winter water consumed from November through March and varies from year to year. For this bill, this charge represents 9,000 gallons/month and is calculated as follows:

$$\$1.42/1,000 \text{ gal} \times 9,000 \text{ gallons} = \$12.78$$

## ACCOUNT INFORMATION

Previous Balance:	75.07
Payments Received:	-75.07
Credits:	
Balance Due Now:	\$0.00
Current Charges Due: 12/29/2014	73.84

### Total Amount Due:

Due Date:

## CURRENT CHARGES

	13.94
Water Usage \$0.58/1,000 gal	7.54
<b>Sewer Base Rate</b>	<b>9.32</b>
<b>Sewer charge \$1.42/1,000 gal</b>	<b>12.78</b>
City Franchise Tax	2.91
Garbage charge (1)	10.50
Recycling (1)	3.05
Green Waste Fee (1)	5.55
Storm Sewer	5.00
Street Lighting	3.25

## CURRENT TOTAL

73.84

# Problem

1. Presently, *Orem City charges the same base rate to each account holder.* It does not charge multi-family housing such as apartments and condominiums or commercial properties with multiple units an individual base rate for each unit. The present sewer base rate is \$9.32 per month *per account holder.*
2. Following cost-of-service principles, the current Orem sewer base rate includes fixed costs associated with operating the system (i.e. costs that do not vary with wastewater production). While a few of these fixed costs can be equitably distributed on a per customer basis (e.g. billing costs), the majority of these *fixed costs are associated with maintaining the infrastructure* and manpower necessary to provide capacity in the system for potential peak flows.

## Problem (cont.)

3. As such, distribution of these costs should be based on the availability and privilege of being connected to the public sewer system as well as the *potential* for wastewater flow from each account holder. Larger customers should pay a larger share than smaller customers. As it is currently structured, the Orem base rate structure results in individual homeowners subsidizing larger customers such as commercial properties and multi-unit developments.

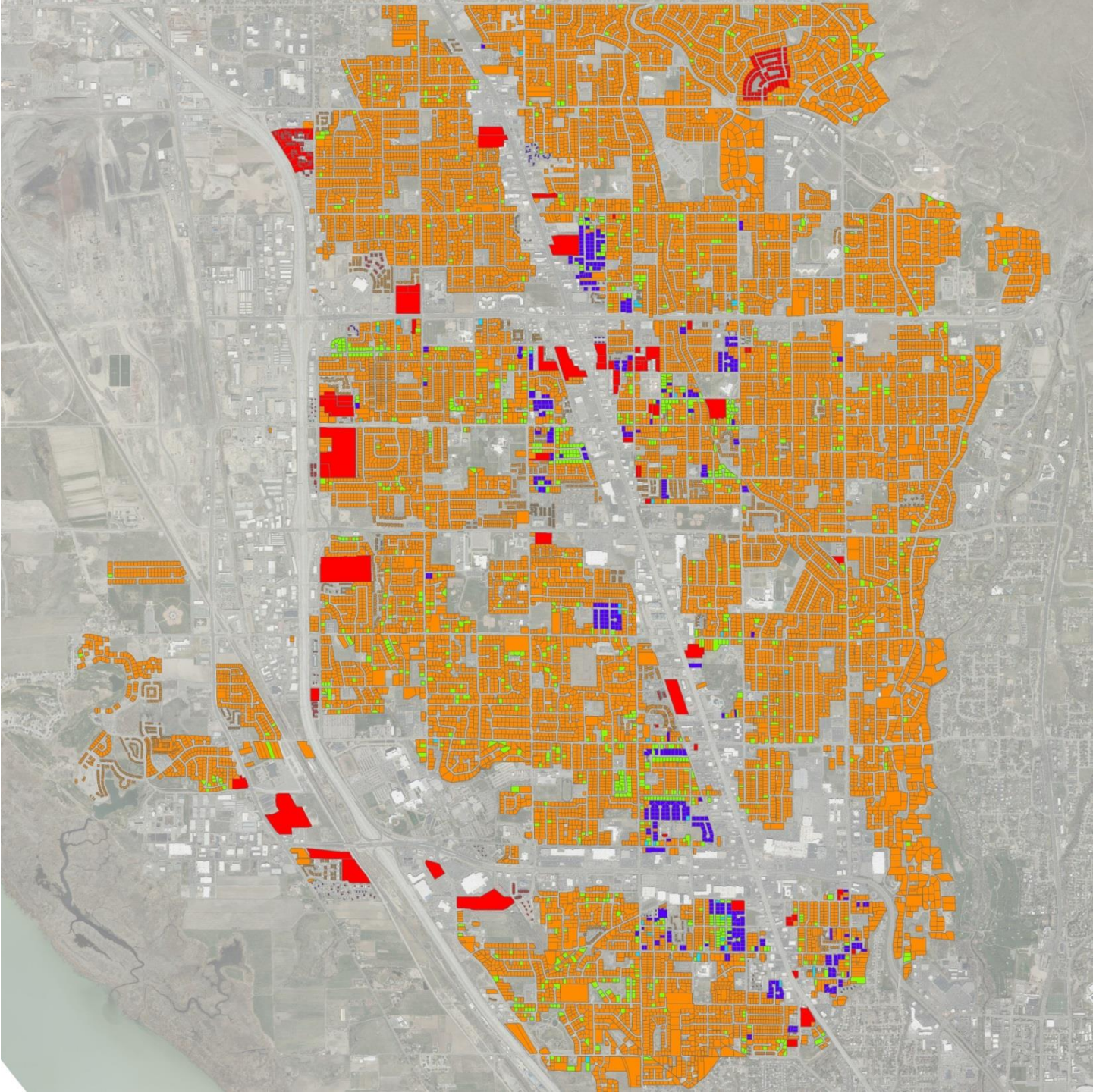
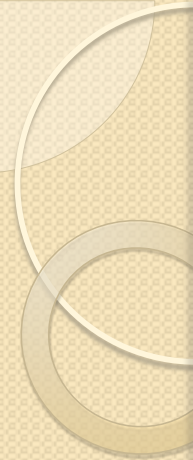
# Solution

- Each residential living unit found in a single-family dwelling, multi-family dwelling, apartment complex, condominium complex, etc. will be charged a sewer base rate. In other words, a 12-plex would now be billed for 12 sewer base rates and not 1 sewer base rate.
- Non-residential, including commercial and industrial, units will be charged a sewer base rate based using their water meter size and the industry standard American Water Works Association (AWWA) equivalent meter information.
- Mixed-use developments will be charged accordingly by combining these two methods and on a case-by-case basis.

# Study Results

- **21,847** Utility Billing Database entries checked in office and in field.
- **20,141** Residential
- **1,706** Non-Residential
- **27,472** Total Residential Units, which means that **7,331** Residential Units are not billed for a sewer base rate.





# Study Results

- Projected residential annual increase: **\$800,000**
- Projected non-residential annual increase: **\$300,000**
- Projected total annual increase: **\$1,100,000**
- The sewer base rate is established to pay for the availability and privilege of connecting to a public sewer system.
- The sewer volume rate is established to create equity for actual usage.
- The revenues generated by the sewer base rate and sewer volume rate are used to pay for any costs associated with the sewer utility, which includes the installation, maintenance, operation, repair, replacement, personnel, and administration costs pertaining to sewer mains, manholes, lift stations, treatment facility infrastructure, etc.

# Benefit

- As the City begins the process of developing a capital improvement program for the City's sewer system and the required funding for that program, this change will help develop additional funding. This was conservatively estimated to be **\$500,000** annually but this has since been *calculated to be \$1,100,000*. This will help offset needed rate increases and address the issue of fairness.
- As a result, staff recommends to eliminate the \$0.21/1,000 gallon increase in Year 1 → this equates to \$600,000. This would result in a \$1.68/month reduction of the monthly bill for an average home in Orem.
- Future increase recommendations will apply to both the base rate and the volume charge.



## EQUAL RESIDENTIAL SEWER BASE RATES FOR ALL



### Current Sewer Base Rate Philosophy



### Proposed Sewer Base Rate Philosophy



### What is the Sewer Base Rate?

The sewer base rate is the monthly charge for the availability of a public sewer system. The amount is billed each month, whether the services are used or not. The ability to discharge to the public sewer system is the basis for the fixed monthly base rate. Those with the potential to discharge more will pay more. Revenues collected from the fee are used to maintain, operate, and replace the sewer system. Presently, the sewer base rate is \$9.32 per month.

### Why Change the Sewer Base Rate Structure?

#### EQUALITY

Properties with more living units require larger pipe sizes and more treatment plant capacity. It is not fair that an apartment, condo, or mobile home complex with multiple living units pays the same base rate as a single-family home.

#### NEEDED IMPROVEMENTS

Changing the base rate billing method will generate additional revenue. This money will be used to replace aged infrastructure such as treatment plant equipment and pipes and will help keep future rate increases for all users as low as possible. Paying for it this way will spread the costs of those needed improvements and maintenance to the users more equitably.

### When will this Change take Effect?

If the City Council approves these changes on December 8, 2015, the new sewer base rate billing method will take effect July 1, 2016.

Find out more by visiting [utilities.orem.org](http://utilities.orem.org)



## EQUAL NON-RESIDENTIAL SEWER BASE RATES FOR ALL

### Current Sewer Base Rate Philosophy



### Proposed Sewer Base Rate Philosophy



### What is the AWWA (American Water Works Association) Multiplier?

The AWWA multiplier is a calculation that represents the quantity of water that can pass through a water meter as a relationship to each other. As shown in the example above, a 1.5-inch meter can pass 3.33 times more water than a 3/4-inch meter. Likewise a 4-inch meter can pass 20 times more water than a 3/4-inch meter.

### What is the logic behind the multiplier?

The size of the meter servicing a commercial property has a direct impact on the needed infrastructure and capacity that the City is required to have in place to meet the needs of non-residential properties during peak times. For example, the amount of infrastructure needed to service a City would be different if all properties used a 3/4" meter versus a 10" meter. The multiplier attempts to distribute the costs of operating the system fairly.

### Why Change the Non-Residential Sewer Base Rate Structure?

Currently, the users of a small office building and a large industrial building pay the same base rate, even though the industrial building requires more infrastructure. This change creates equity in the charge so that those requiring more infrastructure pay their proportional share.

**PUBLIC HEARING** | December 8, 2015 - 6pm  
City Council Chambers



COMMUNITY NEWS & INFORMATION  
56 NORTH STATE STREET  
OREM, UT 84057

**OREM RESIDENT**  
84057  
84058  
84097

PRSR STD  
U.S. POSTAGE  
PAID  
OREM, UT  
PERMIT NO. 8  
ECR WSS

# Outreach

- 10,100 emails to utility account holders
- Businesses Email (63%) out of 995 email addresses opened their email at least once
- Multi-Family Email (55%) out of 806 email addresses opened their email at least once
- Businesses Robocall (92%) out of 2,262 phone calls either answered the phone or had a message left
- Multi-Family Robocall (80%) out of 1,199 phone calls either answered the phone or had a message left
- Personal phone received by Secretaries, Neal Winterton, Steven Downs, etc.

# Utah Apartment Association Email

Steven –

I'm assuming this is sewer (it doesn't say). Or sewer and water.

Some of my members forwarded this to us and asked us to get involved. The UAA position on these issues is that sewer charges should be by appliance (how many showers, toilets, etc) or flow. Unfortunately most systems aren't set up to measure either.

This write up says single family may be subsidizing multifamily but it's the other way around – apartments usually pay a disproportionate amount because the residents have smaller family size and use so much less than single family homes do. In addition, big complexes maintain all the pipes on property and only tie in to the main line in a couple of places. For instances, a 300 unit complex may tie in two places, where 300 homes tie in 300 places, requiring lots more maintenance and service than we do.

**However, we would not oppose this change for three reasons.** 1 – except in subsidized housing, these fees are generally passed on to the tenant. 2 – landlords aren't a sympathetic group and no one listens to the minority in these issues anyway. 3 – Most systems already impose charges strictly per unit and don't have base fees like Orem does. So you are currently an anomaly. **Your new system would be like what everyone else already does.**

So feel free to tell the council while the industry disagrees on the argument that multifamily units use a disproportionate share of the sewer system (we think it can be proven to be opposite), and we think that the maintenance costs are much lower, the UAA isn't going to oppose this change because these fees eventually get passed on to the tenant anyway.

If its water, same argument – charging by usage not base rates is fairest.

We want to be a partner with Orem, not an adversary.

Thanks. See you in January.

# Utah Apartment Association Email Response

- The City does not maintain the sewer laterals (including the connection to the main). The “2 vs. 300” connection analogy does not apply here.
- Sewer mains are designed for “peak flow”. 300 multi-family units (apartments, condos, duplexes, four-plexes, and 300 single-family units would see a similar “peak flow” demand on the system (both conveyance and treatment). It is agreed that the average daily demand may be lower, but that is where the volume charge will equalize the different user types.
- The average household in Orem is 3.7 persons/unit. Both single-family homes and multi-family units have the potential to be above or below the average.
- Orem is the anomaly when it comes to applying base rates.

# Existing Fees and Charges

## Sewer Rates

Monthly, All Uses:

Base Rate <sup>1</sup>	\$9.32/connection
Volume Charge	\$1.42 /1,000 gallons

<sup>1</sup>Effective July 1 of each year, the monthly charge shall be based on the average winter water usage for the preceding months of November through April.



# Proposed Fees and Charges

## Monthly Sewer Rates

Residential Base Rate <sup>1</sup>	\$9.32/Living Unit ( <i>unchanged</i> )
Non-Residential Base Rate <sup>2</sup>	\$9.32 x AWWA Multiplier
Mixed-Use Base Rate <sup>3</sup>	\$9.32/Living Unit + Non-Residential Component
Volume Charge <sup>4</sup>	\$1.42/1,000 Gallons ( <i>unchanged</i> )

<sup>1</sup> Each residential utility account will be assessed a sewer base rate according to the number of residential living units associated with the account. For example, a single-family dwelling will be billed for 1 sewer base rate, a duplex (including single-family dwellings with an accessory apartment) will be billed for 2 sewer base rates, a 4-plex will be billed for 4 sewer base rates, a 12-plex will be billed for 12 sewer base rates, etc.

<sup>2</sup> All non-residential utility account holders will be billed using a water meter size multiplier based on American Water Works Association (AWWA) guidelines. (Table 28-2 from American Water Works Association Manual of Water Supply Practices M1 – “Principles of Water Rates, Fees, and Charges” for water meters up to 3-inches in size and Table 2-2 from American Water Works Association Manual of Water Supply Practices M6 – “Water Meters – Selection, Installation, Testing, and Maintenance” for water meters larger than 3-inches in size.) The following table details the AWWA Multiplier for various water meter sizes.

Meter Size	¾"	1"	1½"	2"	3"	4"	6"	8"	10"
AWWA Multiplier	1.00	1.67	3.33	5.33	10.00	20.00	41.67	53.33	96.67

<sup>3</sup> Mixed-use utility accounts will be assessed according to (1) the number of residential living units and (2) the non-residential component of the mixed-use development. The non-residential component is calculated by determining the equivalent water meter size required to service only the non-residential portion of the mixed-use development using the International Plumbing Code 2012 version, Appendix E201.1 (pressure range over 60) and E103.3(2). The AWWA multiplier associated with the equivalent water meter size will then be applied to determine the non-residential component of the sewer base rate.

<sup>4</sup> Effective July 1 of each year, the monthly charge shall be based on the average winter water usage for the preceding winter months.

# Business Example

- Business Building A and B are exactly the same, but the meter sizes are different.
- Unit A has a 1" meter because the landscaping for the property is tied to the meter for Unit A.
- Unit A and Unit B have the exact same building footprint and fixture count.
- Unit B has a  $\frac{3}{4}$ " meter.
- Unit A pays a \$15.56 sewer base rate.
- Unit B pays a \$9.32 sewer base rate.

# Water Reclamation Fund - Rates

- There are no standards that require the City Council to follow any particular pattern or policy to support the Water Reclamation fund. The underlying principle is to support the ongoing operations of everyday conveyance and treatment to meet the standards set forth in our State of Utah (under the direction of the EPA) discharge permit and a responsible replacement program.
- Although the AWWA multipliers are established and used, multipliers can be modified and set by the council as they see fit.
- Different cities, entities, and districts have all chosen different methods and means to fund the operations with different and unique billing multipliers and proportions to base charge and volume charge.

# How do other cities bill?

City	Base Rate	Accounts	Living Units	Monthly Sewer Base Rate Bill	Monthly Difference (Current)	Monthly Difference (Proposed)
Orem (Current)	\$9.32	10	196	\$93.20	\$0.00	-\$1,733.52
Orem (Proposed)	\$9.32	10	196	\$1,826.72	\$1,733.52	\$0.00
Payson	\$32.39	10	196	\$6,348.44	\$6,255.24	\$4,521.72
Santaquinn (Incorporated)	\$37.44	10	196	\$7,338.24	\$7,245.04	\$5,511.52
Santaquinn (Unincorporated)	\$74.88	10	196	\$14,676.48	\$14,583.28	\$12,849.76
American Fork	\$35.35	10	196	\$6,928.60	\$6,835.40	\$5,101.88
Provo	\$7.31	10	196	\$73.10	-\$20.10	-\$1,753.62
Pleasant Grove	\$24.14	10	196	\$4,731.44	\$4,638.24	\$2,904.72
Lindon	\$16.97	10	196	\$3,326.12	\$3,232.92	\$1,499.40
Springville	\$19.93	10	196	\$3,906.28	\$3,813.08	\$2,079.56
Spanish Fork	\$16.59	10	196	\$3,251.64	\$3,158.44	\$1,424.92
St. George	\$10.68	10	196	\$2,093.28	\$2,000.08	\$266.56

# Frequently Asked Questions

**Q: What is the proposed sewer base rate policy change beginning **July 1, 2016**?**

A: Presently, utility account holders pay one sewer base rate regardless of the number of actual living units connected to the public sewer system. In effect, an account holder of a single-family dwelling may be paying the same amount as an account holder of multiple living units. Beginning **July 1, 2016**, all residential utility account holders will be charged a sewer base for each living unit.

**Q: How will this affect me if I own a single-family dwelling?**

A: An account holder for a single-family dwelling will not be affected by this policy change. The current sewer base rate of \$9.32 will continue to be charged to your account each month. In the event the sewer base rate changes, you will be billed for that rate.

**Q: Why is this change needed?**

A: The simple answer is fairness to all users. Paying for the privilege of or ability to discharge to the public sewer system should be charged among all account holders in a fair and equitable manner. This is a necessary step towards that end.

# Frequently Asked Questions

## **Q: How is sewer charged each month?**

A: There are two sewer charges each month: a Sewer Base Rate and a Sewer Production Rate.

## **Q: What is the Sewer Base Rate?**

A: The sewer base rate is the monthly charge for the availability of being connected to a public sewer system. The amount is fixed each month, whether the facilities are utilized or not. The privilege of having the ability to discharge to the public sewer system is the basis for a fixed monthly base rate. Revenues collected from the fee are generally used to maintain and replace the sewer collection system. Presently, the sewer base rate is \$9.32 per month.

## **Q: What is the Sewer Production Rate?**

A: Sometimes referred to as the commodity charge, the sewer production rate is associated with conveying and treating discharges to the public sewer system. Each winter, the sewer production for each account holder is measured by using the winter water consumption associated with that account. The amount charged depends on the volume of discharge. Therefore, those who produce more will pay more. Revenues collected from this fee are generally used to operate, maintain, and replace the Orem Water Reclamation Facility. Presently, the rate is \$1.42/1,000 gallons.

# Frequently Asked Questions

**Q: How will this affect me if I own a 4-plex?**

A: An account holder for a 4-plex will be billed 4 times the base rate. The current sewer base rate of \$9.32 per living unit will result in a \$37.28 monthly charge. In the event the sewer base rate changes, you will be billed for 4 times that rate.

**Q: How will my mixed-use sewer base rate charge be affected by this?**

A: Accounts that are associated with mixed uses of residential and non-residential will be evaluated on a case-by-case basis. However, each residential living unit will be assessed one sewer base rate and the non-residential portion of the mixed-use development will be assessed according to the minimum required meter size for that development.

**Q: How will this affect me if I own a 12-plex?**

A: An account holder for a 12-plex will be billed 12 times the base rate. The current sewer base rate of \$9.32 per living unit will result in a \$111.84 monthly charge. In the event the sewer base rate changes, you will be billed for 12 times that rate.

# Frequently Asked Questions

**Q: How will this affect me if I have an account with 100 units?**

A: An account holder with 100 units will be billed 100 times the base rate. The current sewer base rate of \$9.32 per living unit will result in a \$932.00 monthly charge. In the event the sewer base rate changes, you will be billed for 100 times that rate.

**Q: How will my business sewer base rate charge be affected by this?**

A: Because non-residential account holders do not have living units, your business will be charged according to American Water Works Association (AWWA) guidelines. Accordingly, a multiplier associated with your meter size will be applied to the sewer base rate according to this schedule.

Meter Size	¾"	1"	1½"	2"	3"	4"	6"	8"	10"
AWWA Multiplier	1.00	1.67	3.33	5.33	10.00	20.00	41.67	53.33	96.67



# Frequently Asked Questions

## **Q: How do other cities apply sewer base rates?**

A: Every city is different but Orem surveyed American Fork, Lindon, Ogden, Pleasant Grove, and Provo. Only Provo currently bills similar to Orem but is very interested in changing their billing structure to what Orem is proposing. (In FY 2016, Provo increased to its rate from \$5.88 to \$7.31).

### Budget Highlight from Provo City FY2016 Wastewater Fund

- FY 2016 included a utility rate increase of 24.4% or an average of \$5.78 per month for a residential customer.

# How do other cities bill?

City	Sewer Base Rate	Assessment Method	Examples		
			Single Family Home	Multi-family Residential 4-plex	Business
Orem (Currently)	\$9.32	Per Account	\$9.32	\$9.32	\$9.32
Orem (Proposed)	\$9.32 (Pending Capital Facility Plan and Financial Plan)	Per Dwelling Unit or Non-residential meter size	\$9.32	\$37.28 (4 x \$9.32)	\$31.03 ( $\$9.32 \times \text{AWWA multiplier } 3.33 \text{ for } 1\text{-}\frac{1}{2}\text{' water meter}$ )
American Fork	\$35.55	Per "unit"	\$35.55	\$142.20 (4 x \$35.55)	\$35.55 each business.
Lindon	\$16.97	Per "unit" for residential AND non-residential	\$16.97	\$67.88 (4 x \$16.97)	\$16.97 each business.
Ogden	\$28.58	Meter Size (both residential and non-residential)	\$28.58	\$47.30 1" meter	\$66.02
Pleasant Grove	\$24.14	Per "unit" for residential AND non-residential	\$24.14	\$96.56 (4 x \$24.14)	\$24.14 each business.
Provo	\$7.31	Per Account	\$7.31	\$7.31	\$7.31



# Questions?